US Army Corps of Engineers ®

Hauling Units Safety Briefing

US Army Corps of Engineers ®

General Information

- All trucks used to haul debris must be capable of rapidly dumping its load without the assistance of equipment, be equipped with a tailgate that will effectively contain the debris during transport and that will permit the truck to be filled to capacity.

US Army Corps of Engineers ®

General Information

- Sideboards or other extensions to the bed are allowable provided they meet all applicable rules and regulations, cover the FRONT and BOTH sides, and are constructed in a manner to withstand severe operating conditions. The sideboards are to be constructed of 2” by 6” boards or greater and not to extend more than two feet above the metal bedsides and are subject to approval by the contracting agency. It is the contractor’s responsibility to report any adjustments of the sideboards for re-measurement.

US Army Corps of Engineers ®

General safety requirements for hauling units

- All hauling units must be in good working order.
- All lights and turn indicators shall be in a working condition
- Brake lights shall be in good working order
- Back up alarms shall be present and audible to anyone behind the truck/trailer
- Tires shall be in good condition with no gouges and plenty of tread.
- Gates must be able to close and lock in a way that will prevent debris from falling out during transport.

US Army Corps of Engineers ®

General safety requirements for hauling units

- Inspections will occur during the sign in process and periodically in the field by the contractor. Trucks found not to be in compliance with any of the above will be placed out of service and not allowed to resume hauling until proof is provided that the proper repairs have been made.
- All hauling units shall be inspected daily prior to use by the operator. The Federal DOT requires that all commercial vehicle drivers conduct a pre trip and post trip inspection each day prior to starting work and at the end of each work day.

US Army Corps of Engineers ®

Specific requirements for pick up trucks pulling a self dumping trailer

- Trucks pulling self dumping trailers shall be a ¾ ton (2500 series) size or bigger and shall have four wheel drive (4x4). Trucks shall not pull a trailer that has a GVWR over the manufacturer's allowable hauling capacity.
- A Class A Commercial drivers license is required when any combination of vehicles/trailers with a Gross Combination Weight Rating (GCWR) of 26,001 or more pounds provided the GVWR of the vehicle/trailer being towed is in excess of 10,000 pounds.
  - **For example:**
    - A Driver shall have Class A CDL if :
      - Truck GVWR + Trailer GVWR is greater than 26,001 lbs.
    - A Driver may drive a truck with a Class D license (regular non CDL) if :
      - The truck GVWR + Trailer GVWR is less than 26,000 lbs.

US Army Corps of Engineers ®

Specific requirements for pick up trucks pulling a self dumping trailer

- Pick up trailers shall be equipped with a functioning back up alarm, lights, brake lights, turn signals etc.

- Dumping mechanism shall be able to quickly dump its load with out the assistance of other tools or equipment.

US Army Corps of Engineers ®

Driver requirements

- All drivers shall have the appropriate license and endorsements for the vehicle in which they are operating.
- All hauling units shall have a sticker with truck number and truck capacity; this shall remain present and legible at all times.
- The driver is responsible for the load while in transport; all loads shall be trimmed to the point that no sticks or limbs laterally extend 6 inches beyond the bed sides. Limbs, sticks etc. shall not extend vertically over 13’6” from the ground at any time during transport. Drivers are not permitted to climb the sides of the truck; tools or equipment shall be used to trim the load.

US Army Corps of Engineers ®

Driver requirements

- The driver shall inspect the load and confirm that the tailgate is locked prior to leaving the loading area.
- Drivers shall follow all federal and state DOT requirements while hauling debris.
- Drivers shall drive in a safe manner complying with speed limits and all traffic devices (stop signs, red lights, etc.).
- Trucks shall only be parked in work zones or approved parking areas. Do not park in the middle of the road or partially block a lane of traffic.

US Army Corps of Engineers ®

Tailgate requirements

- After market or “home made” tailgates shall meet the following requirements:
- A strong metal mesh or chain link fencing shall be used.
- Solid metal bars shall be used to attach the fencing to the trailer bed.
- Metal fencing shall be PERMANENTLY attached to one side of the trailer bed.
- After loading, tie fencing to other side of truck bed in TWO places (top and bottom) with heavy gage wire or similar material. Bungee cords and stretch wraps are NOT permitted.

US Army Corps of Engineers ®

Tailgate requirements

- Fencing must extend to bottom of the bed. It is highly recommended to have a metal bar or strong edge at the bottom of the gate to hold debris in the bed of the trailer.

- After loading, the bottom of the fencing shall be tight against the bed of the truck and secured at a minimum of two locations.
- Although it is not required, it is recommended that the tailgate extend to the height of the sideboards.
- See attached diagram.

US Army Corps of Engineers ®

Stump hauling requirements, load securement

Flatbed trailers

- All trailers hauling any material shall have a sticker and go through the safety check in.
- Flatbed trailers for stump hauling shall have sufficient tie downs to secure the load. Stumps will come in various sizes and shapes, always carry extra tie downs. Wide cloth straps or chains that can be ratcheted tight are the preferred method of securing stumps.
- “Sufficient” tie downs is defined as a minimum of two tie downs that shall be used in an “X” shaped pattern. Larger, heavier stumps will require a 3rd and maybe a 4th tie down. Always, carry extra tie downs.
- No part of the stump shall extend 6 inches laterally beyond the deck of the trailer.
- Larger stumps may require the use of an escort vehicle this will be addressed on a case by case basis.
- Drive cautiously when carrying a heavy load. Lateral forces are magnified when traveling through curves or sudden stops.

US Army Corps of Engineers ®

Stump hauling requirements, load securement

Hauling stumps in standard haul trucks

- Truck sides must be capable of controlling the load.
- Use tie downs if truck does not have a solid manufacturers tailgate or bed sides. Do not climb inside of the truck bed unless the stump is 100% stable with no chance of shifting. The preferred means of stump removal is inside of a manufacturer built bed or secured on a flat bed. “Home made” bed sides may not be able to withstand the lateral pressures exerted from a stump during transport.
- No part of the stump shall extend beyond 13’6” vertically from the ground, nor shall it extend 6 inches laterally beyond the bed sides.

US Army Corps of Engineers ®

Equipment Safety

All equipment shall be kept in good working order and within the manufacturer's specifications. Pertains to any light and heavy equipment used to handle debris: front end wheel loaders, rubber tired backhoes, bob cats, skid steers, tela-handler type machines, excavators, rubber tired tractors etc…

US Army Corps of Engineers ®

General safety requirements for hauling units

- All equipment shall have a working seat belt
- All equipment shall have a working back up alarm
- Spotters must be used in congested areas; spotter shall maintain radio or visual contact with the operator.
- Manufacture's Roll Over Protection (ROP) shall be in place and may not be altered. This only applies to equipment manufactured with ROP's.
- All equipment shall have a fire extinguisher present.
- All mirrors and lights shall be present and in good working order

US Army Corps of Engineers ®

General safety requirements for hauling units

- Equipment shall be free of fluid leaks, if a leak occurs during the work day the machine shall be shut down and the leak repaired. All crews shall have some form of oil absorbents present on site to contain any fluids that may leak onto the ground or street.
- Glass windows shall be present in good condition and free of cracks.
- No riders are permitted on the equipment at any time. Only the operator shall be on the equipment while it is in motion.

US Army Corps of Engineers ®

General safety requirements for hauling units

- Buckets and grapples shall not be operated with in 10’ of overhead utility lines.
- Inspect work area prior to setting up, plan the location of the loading unit to keep it the minimum of 10’ from overhead utility lines.
- Equipment shall only work inside of an established work zone with the proper traffic control devices in place.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Enclosed cab pull behind knuckle boom loader (log loader)

- Seat belt shall be present in loader
- All lights shall be present and working; brake lights, reverse lights and turn indicators.
- A functioning back up alarm shall be present and audible to anyone behind the trailer.
- The boom shall be in good working condition free of stress fractures and cracks.
- Operator shall have means of access and egress which allow for the use of three points of contact.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Enclosed cab pull behind knuckle boom loader (log loader)

- Operators shall not operate equipment within 10’ of overhead utility lines. This includes the boom as well as the cab.
- Inspect work area prior to setting up, plan the location of the loading unit to keep it the minimum of 10’ from overhead utility lines
- Do not pick up piles with downed utility lines mixed into them. All precautions must be taken, treat all lines as if they are live.
- Work zone shall be established prior to bringing loader into loading area.
- At no point shall operator swing boom over any ground personnel.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Enclosed cab pull behind knuckle boom loader (log loader)

- When lowering outriggers, operators shall look and be certain that all workers are away from the area. Place an orange cone beside outrigger once it has been lowered.
- Prior to moving to the next work area, operators shall put the boom in the manufactures recommended resting position and exit the cab. No riding in the cab is permitted.
- Loader shall be free of fluid leaks at the time of inspection, if a leak occurs during the work day the machine shall be shut down and the leak repaired. All crews shall have some form of oil absorbents present on site to contain any fluids that may leak onto the ground or street. It is no if a leak will occur but when, be prepared.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Enclosed cab pull behind knuckle boom loader (log loader)

- When lowering outriggers, operators shall look and be certain that all workers are away from the area. Place an orange cone beside outrigger once it has been lowered.
- Prior to moving to the next work area, operators shall put the boom in the manufactures recommended resting position and exit the cab. No riding in the cab is permitted.
- Loader shall be free of fluid leaks at the time of inspection, if a leak occurs during the work day the machine shall be shut down and the leak repaired. All crews shall have some form of oil absorbents present on site to contain any fluids that may leak onto the ground or street. It is no if a leak will occur but when, be prepared.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Knuckle boom self loading truck

- Seat shall be present and bolted in at a minimum of two places. The seat shall be stable and secured.
- Seat shall be complete with seat bottom and back rest.
- The vehicle in which the knuckle boom is attached shall be capable of supporting the loader in a working mode.
- A functioning back up alarm shall be present and audible to anyone behind the truck.
- The boom shall be in good working condition free of stress fractures and cracks.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Knuckle boom self loading truck

- The ladder leading up to the seat shall be kept in good working condition, free of broken and loose steps. Access and egress must be possible using the 3 point system.
- Operators shall not operate equipment and boom within 10’ of overhead utility lines.
- Inspect work area prior to setting up, plan the location of the loading unit to keep it the minimum of 10’ from overhead utility lines
- Do not pick up piles with downed utility lines mixed into them. All precautions must be taken, treat all lines as if they are live.
- At no point shall operator swing boom over any ground personnel.

US Army Corps of Engineers ®

Knuckle boom loaders and self loaders

Knuckle boom self loading truck

- When lowering outriggers, operators shall look and be certain that all workers are away from the area. Place an orange cone beside outrigger once it has been lowered.
- At no point shall the truck be moved with the operator on top. Operator shall climb down prior to moving the loader to the next pile.
- Loader shall be free of fluid leaks at the time of inspection, if a leak occurs during the work day the machine shall be shut down and the leak repaired. All crews shall have some form of oil absorbents present on site to contain any fluids that may leak onto the ground or street. It is not if a leak will occur but when, be prepared.

Minimum Traffic Control Requirements

Traffic Control Devices

- All crews shall be equipped with proper materials to work on major roadways.
- Each crew shall have a minimum of 6 48 inch orange traffic signs with sign stands prior to starting work on the roadways. The signs should say “Flagman Ahead” or the flagger symbol, “Be Prepared to Stop”, “Road Work Ahead”
- Prior to bringing equipment into the roadway, the work area shall be set with signs and flagmen in place.
- All crews must have signs and flagmen every day, those found with out will not be allowed to work until they are in compliance with _

US Army Corps of Engineers ®

Minimum Traffic Control Requirements

Traffic Control Devices

- Crews working on streets with yellow and/or white lines or roads that are heavily traveled are required to have the following:
  - Traffic control zones set up according to DOT requirements.
  - Crews must have 6 road signs with 3 on each side of the work zone when working on lined streets.
  - All lane closures on lined streets shall require 3 signs on each side of the work zone.
  - Signage shall provide clear positive guidance/warning for the motorist. Use only signs that are in good repair, faded or damaged signs will not be allowed.
  - Flagmen shall be present on all work completed on lined roads. Flagmen must be equipped with stop slow paddles.

Minimum Traffic Control Requirements

Traffic Control Devices

- Crews working in subdivision, dead-ends, or residential roads (without lines) must have the following at a minimum:
  - Traffic control zones set up according to DOT requirements
  - One sign on each side of the work zone (dead ends only require a sign at the end of the road).
  - Flagmen on the ground to assist any motorist that may approach the work area.
  - Keep in mind when checking in each crew will be asked to show that they have the minimum requirement of 6 road signs. Each crew shall have these with them at all times whether working in residential streets or major roads.

US Army Corps of Engineers ®

Minimum Traffic Control Requirements

Traffic Control Devices

- As crews move throughout the day signs must be moved as well. Keep the work zone moving with the crew, do not work too far away from signs and never work outside of your signs.

US Army Corps of Engineers ®

General PPE Requirements

- All sight personnel must wear hard hats, orange reflective vests, shirts with a minimum 4 inch sleeve, work pants and leather work boots. Hard hats must be worn at all times including while operating heavy equipment.
- Truck drivers shall comply with all the above anytime outside of the cab of the truck.
- Gloves shall be worn when handling debris or hand tools.
- Chainsaw operators shall wear head, eye/face protection, gloves, saw chaps and steal toed boots.
- Eye protection shall be worn when exposed to flying debris.